



Indiana Traffic Safety Facts 2003

Large Trucks

<http://www.in.gov/cji>

**Nearly one out of five
Indiana traffic
fatalities in 2003
resulted from a
collision involving a
large truck.**

In 2003, 457,000 large trucks¹ were involved in traffic crashes in the United States; 4,669 were involved in fatal crashes. A total of 5,293 people died—12.4 percent of all the traffic fatalities reported in 2003. In Indiana, 166 large trucks were involved in fatal traffic crashes. A total of 156 people died in crashes involving large trucks, representing 18.7 percent (156 of 834) of all traffic fatalities reported in Indiana in 2003.

Table 1: Involvement in Fatal Crashes and Involvement Rates for Large Trucks in Indiana, 2000–2003

| Year | Number of Large Trucks Involved in Fatal Crashes | Number of Large Trucks Registered | Vehicle Involvement Rate ¹ | Average Annual Vehicle Miles Traveled (millions) | Vehicle Involvement Rate ² |
|------|--|-----------------------------------|---------------------------------------|--|---------------------------------------|
| 2000 | 167 | 75,295 | 22.2 | 95.03 | 6.41 |
| 2001 | 133 | 75,630 | 17.6 | 97.94 | 4.96 |
| 2002 | 120 | 75,093 | 16.0 | 96.48 | 4.54 |
| 2003 | 166 | 76,589 | 21.7 | 96.59 | 6.27 |

¹ Rate per 10,000 registered vehicles

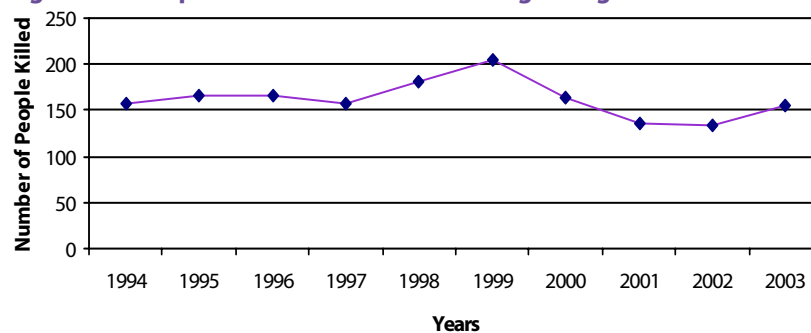
² Rate per annual million vehicle miles traveled

Source: Vehicle miles traveled: Federal Highway Administration

Registered large trucks: Indiana Bureau of Motor Vehicles

The number of people killed in large truck crashes increased to 156 in 2003 from a 9-year low of 133 in 2002. Nearly 1 out of 5 Indiana fatalities in 2003 resulted from a collision involving a large truck.

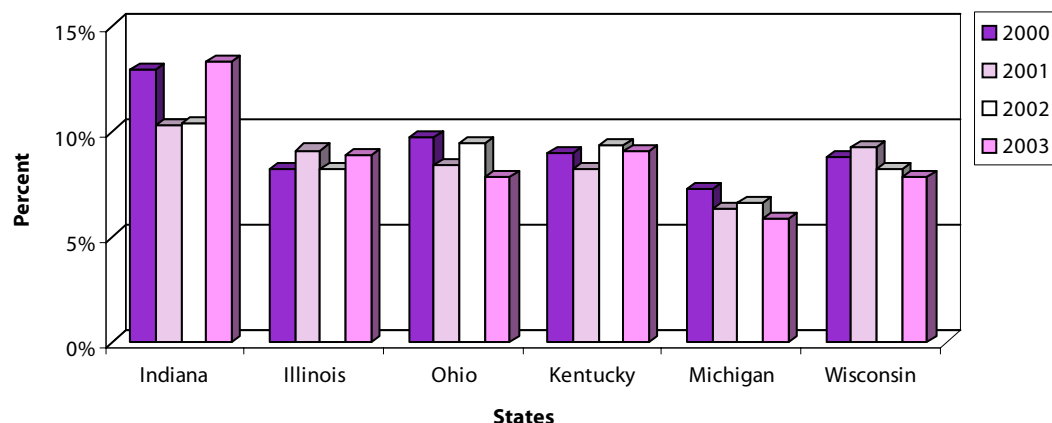
Figure 1: People Killed in Crashes Involving a Large Truck for Indiana, 1994–2003



¹ Large trucks are defined as those with a gross vehicle weight rating greater than 10,000 pounds.

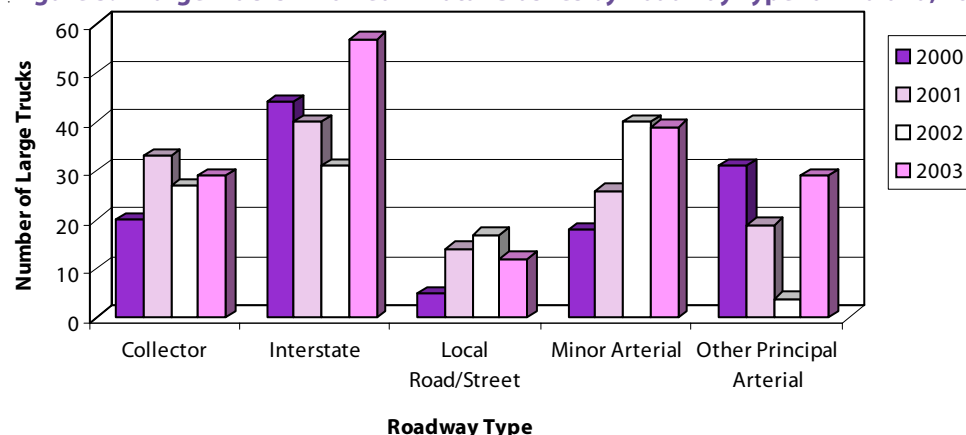
As compared to the contiguous states, Indiana has the highest large truck involvement rate in fatal crashes.

Figure 2: Percentage of Large Truck Fatal Crashes for Indiana and Contiguous States, 2000–2003



Indiana has the highest percent of all large truck fatal crashes, when compared to other Midwest states.

Figure 3: Large Trucks Involved in Fatal Crashes by Roadway Type for Indiana, 2001–2003



Interstate large truck involvement had an 84 percent increase (31 to 57) in 2003.

In multiple-vehicle crashes involving a large truck, 80 percent of the fatalities were occupants of the other vehicle.

Table 2: Fatalities Involving Large Trucks for Indiana, 2003

| Type of Fatality | Number | Percent of Total |
|--|--------|------------------|
| Occupant of Large Truck | 23 | 14.7 |
| Single-Vehicle Crashes | 11 | 7.0 |
| Multiple-Vehicle Crashes | 12 | 7.7 |
| Occupant of Other Vehicles in Crashes Involving Large Trucks | 125 | 80.1 |
| Nonoccupant (Pedestrians, Pedalcyclists, etc.) | 8 | 5.1 |

When large trucks are involved in fatal crashes, the occupant of the other vehicle is much more likely to die. During 2003, of the fatalities from crashes involving large trucks, 80.1 percent (125 of 156) were occupants of another vehicle, 5.1 percent (8 of 156) were nonoccupants, and 14.7 percent (23 of 156) were occupants of a large truck.

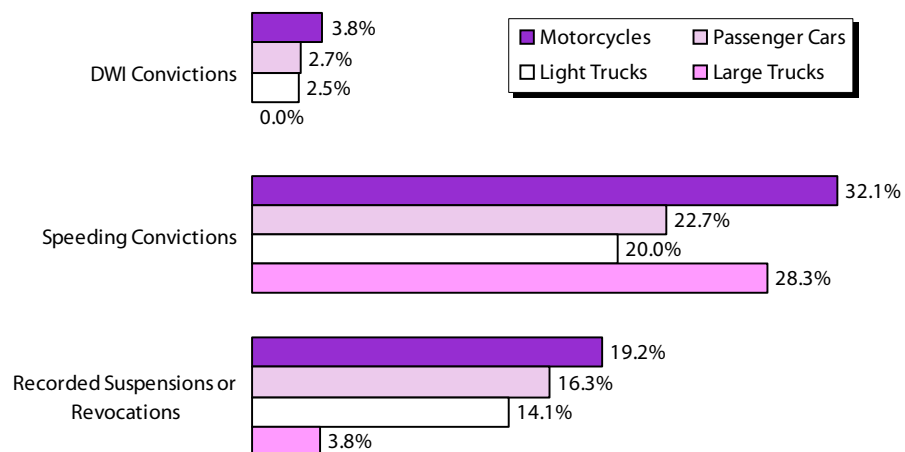
Table 3: Principle Impact Points in Two-Vehicle Fatal Crashes Involving Large Trucks for Indiana, 2003

| Impact Point on Large Truck | Impact Point on Other Vehicle | | | | | Total |
|-----------------------------|-------------------------------|-----------|------------|-----------|-----------|-----------|
| | Front | Left Side | Right Side | Rear | Other | |
| Front | 21 | 4 | 6 | 14 | 5 | 50 |
| Left Side | 6 | 0 | 0 | 1 | 2 | 9 |
| Right Side | 6 | 0 | 0 | 1 | 0 | 7 |
| Rear | 8 | 0 | 0 | 1 | 3 | 12 |
| Other | 1 | 0 | 0 | 0 | 9 | 10 |
| Total | 42 | 4 | 6 | 17 | 19 | 88 |

In 23.8 percent (21 of 88) of the two-vehicle fatal crashes in Indiana involving a large truck and another vehicle, both vehicles were impacted in the front.

In 2003, there were 14 large trucks striking the rear of another vehicle compared to only 1 in 2002.

Drivers of large trucks in fatal crashes are much more likely to have been convicted of speeding than drivers of other vehicles.

Figure 4: Previous Driving Record of Drivers Involved in Fatal Traffic Crashes by Type of Vehicle for Indiana, 2003

Drivers of large trucks involved in fatal crashes are much less likely to have had a DWI conviction (0 percent) than drivers of other vehicle types (passenger cars 2.7 percent).

Large truck drivers are more likely to have had a speeding conviction than drivers of other vehicle types except for motorcycles. In 28.3 percent of Indiana's 2003 large truck fatal crashes, the driver had a previous speeding conviction as compared to the national average of 27.4 percent.

Most 2003 large truck fatal crashes were between 6:00 AM and 5:59 PM.

Table 4: Large Truck Involvement in Fatal Crashes by Time of Day and Day of the Week for Indiana, 2003

| Time | Total |
|--------------------|------------|
| 12:00 AM - 2:59 AM | 17 |
| 3:00 AM - 5:59 AM | 18 |
| 6:00 AM - 8:59 AM | 38 |
| 9:00 AM - 11:59 AM | 20 |
| 12:00 PM - 2:59 PM | 35 |
| 3:00 PM - 5:59 PM | 24 |
| 6:00 PM - 8:59 PM | 6 |
| 9:00 PM - 11:59 PM | 8 |
| Total | 166 |

| Day | Total |
|--------------|------------|
| Monday | 39 |
| Tuesday | 41 |
| Wednesday | 26 |
| Thursday | 15 |
| Friday | 22 |
| Saturday | 15 |
| Sunday | 8 |
| Total | 166 |

Seventy percent (117 of 166) of fatal crashes involving large trucks happened between 6:00 AM and 5:59 PM. Forty-eight percent (80 of 166) of large trucks fatal crashes occurred on Mondays or Tuesdays in 2003.

Nearly 50 percent of large truck fatal crashes occurred on Monday or Tuesday in 2003.

Figure 5: Large Truck Involvement in Fatal Crashes by Road Conditions for Indiana, 2003

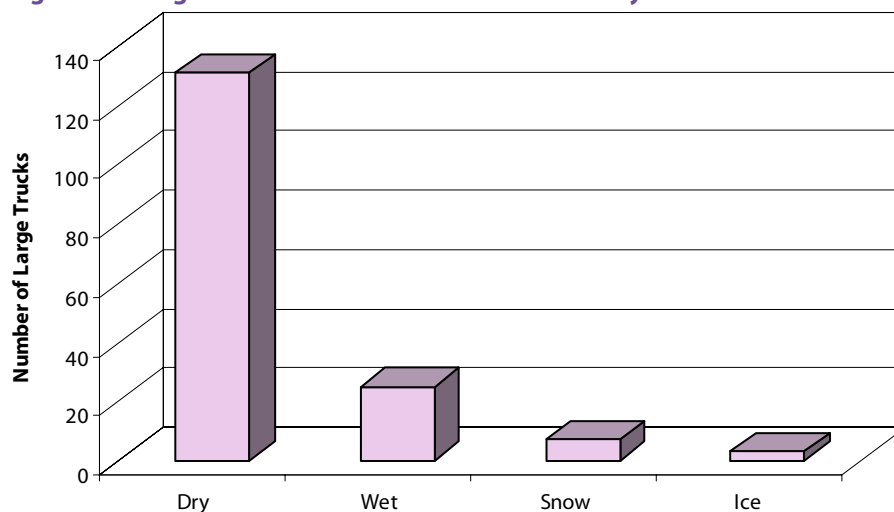


Table 5: 2003 Alcohol Involvement (Driver BAC) in Large Truck Fatal Crashes

| Blood Alcohol Content (BAC) per 100 g/dl | Large Truck BAC Total | Passenger Vehicle BAC Total |
|--|-----------------------|-----------------------------|
| .00 | 72 | 63 |
| .01 to .07 | 0 | 1 |
| .08 and over | 2 | 10 |

In crashes where blood alcohol content is known, the passenger vehicle driver is 5 times as likely to be intoxicated.

Table 6: 2003 Large Truck Vehicles in Fatal Crashes by Body Type

| Cargo Body Type | Number | Percent |
|----------------------|--------|---------|
| Van/Enclosed Box | 102 | 61.4 |
| Cargo Tank | 6 | 3.6 |
| Flatbed | 23 | 13.9 |
| Dump | 13 | 7.8 |
| Garbage/Refuse | 2 | 1.2 |
| Grain, Chips, Gravel | 11 | 6.6 |
| Other | 2 | 1.2 |
| Unknown | 7 | 4.2 |

Almost two-thirds of the large truck fatal crashes involved a van/enclosed box body type.

Marion County
accounted for 10.6
percent of all fatal
crashes but only 5.1
percent of large truck
fatal crashes.

Lake County
accounted for only 7.0
percent of all fatal
crashes and 7.3
percent of large truck
fatal crashes.

Table 7: Large Truck Involvement in Fatal Crashes for Indiana by County, 2003

| County | Total Fatal Crashes | Large Truck Fatal Crashes | | |
|--------------|---------------------|---------------------------|--------------------------------------|--------------------------------------|
| | | Number | Percent of Total Large Truck Crashes | Cumulative Total Large Truck Crashes |
| Marion | 80 | 7 | 5.07 | 5.07 |
| Lake | 53 | 10 | 7.25 | 12.32 |
| Saint Joseph | 27 | 3 | 2.17 | 14.49 |
| LaPorte | 26 | 9 | 6.52 | 21.01 |
| Allen | 22 | 5 | 3.62 | 24.64 |
| Elkhart | 20 | 3 | 2.17 | 26.81 |
| Hamilton | 19 | 6 | 4.35 | 31.16 |
| Vanderburgh | 18 | 4 | 2.90 | 34.06 |
| Madison | 18 | 2 | 1.45 | 35.51 |
| Tippecanoe | 15 | 3 | 2.17 | 37.68 |
| Porter | 15 | 1 | 0.72 | 38.41 |
| Kosciusko | 14 | 3 | 2.17 | 40.58 |
| Johnson | 13 | 2 | 1.45 | 42.03 |
| Boone | 11 | 5 | 3.62 | 45.65 |
| Marshall | 11 | 2 | 1.45 | 47.10 |
| Steuben | 11 | 2 | 1.45 | 48.55 |
| Bartholomew | 10 | 4 | 2.90 | 51.45 |
| Wayne | 10 | 3 | 2.17 | 53.62 |
| Dearborn | 10 | 2 | 1.45 | 55.07 |
| Gibson | 10 | 2 | 1.45 | 56.52 |
| Harrison | 10 | 2 | 1.45 | 57.97 |
| Henry | 10 | 2 | 1.45 | 59.42 |
| White | 9 | 3 | 2.17 | 61.59 |
| DeKalb | 9 | 2 | 1.45 | 63.04 |
| Delaware | 9 | 1 | 0.72 | 63.77 |
| Vigo | 9 | 1 | 0.72 | 64.49 |
| Rush | 8 | 5 | 3.62 | 68.12 |
| Clinton | 8 | 4 | 2.90 | 71.01 |
| Decatur | 8 | 2 | 1.45 | 72.46 |
| Grant | 8 | 2 | 1.45 | 73.91 |
| Howard | 8 | 2 | 1.45 | 75.36 |
| Daviess | 8 | 1 | 0.72 | 76.09 |
| Hendricks | 8 | 1 | 0.72 | 76.81 |
| Lawrence | 8 | 1 | 0.72 | 77.54 |
| Morgan | 7 | 1 | 0.72 | 78.26 |
| Jasper | 6 | 4 | 2.90 | 81.16 |
| LaGrange | 6 | 3 | 2.17 | 83.33 |
| Whitley | 6 | 3 | 2.17 | 85.51 |
| Newton | 5 | 2 | 1.45 | 86.96 |
| Floyd | 5 | 1 | 0.72 | 87.68 |
| Miami | 5 | 1 | 0.72 | 88.41 |
| Owen | 5 | 1 | 0.72 | 89.13 |
| Washington | 5 | 1 | 0.72 | 89.86 |
| Vermillion | 4 | 2 | 1.45 | 91.30 |
| Fulton | 4 | 1 | 0.72 | 92.03 |
| Crawford | 3 | 1 | 0.72 | 92.75 |
| Knox | 3 | 1 | 0.72 | 93.48 |
| Pulaski | 3 | 1 | 0.72 | 94.20 |
| Spencer | 3 | 1 | 0.72 | 94.93 |
| Putnam | 2 | 2 | 1.45 | 96.38 |
| Huntington | 2 | 1 | 0.72 | 97.10 |
| Scott | 2 | 1 | 0.72 | 97.83 |
| Sullivan | 2 | 1 | 0.72 | 98.55 |
| Brown | 1 | 1 | 0.72 | 99.28 |
| Starke | 1 | 1 | 0.72 | 100.00 |
| Total | 613 | 138 | 100.00 | 100.00 |

Counties not shown did not have a large truck fatal crash in 2003.

Conclusion

After a 3-year decrease in Indiana large-truck-involved fatalities, 2003 saw an increase in fatalities from 133 in 2002 to 156 in 2003. This increase follows the total fatality increase for the state from 792 in 2002 to 834 in 2003. Large truck fatal crashes also saw increases in Interstate fatal crashes and large trucks striking the rear of other vehicles. Drivers of large trucks involved in fatal crashes usually have a better driving record with the exception of speeding convictions. A majority of the large truck fatal crashes occur between 6:00 AM and 5:59 PM and happen early in the week during Monday or Tuesday. Lake County in 2003 accounted for the most large truck fatal crashes in Indiana but the largest increase came in Marion County which went from 2 in 2002 to 7 in 2003 just 3 short of the 10 that happened in Lake County during 2003.

The use of safety equipment and the design of new cars is greatly reducing crash injuries and deaths in the United States, but when large heavy trucks are involved, safety equipment and passenger vehicle designs are not enough. A combined approach using education, enforcement and engineering must be done to further reduce the occurrence of large truck crashes, and the resulting injuries and deaths that follow.

This publication was prepared on behalf of the Indiana Criminal Justice Institute by Purdue University's Center for the Advancement of Transportation Safety. All information contained within was gathered from the Fatality Analysis Reporting System (FARS) Web-Based Encyclopedia provided by the National Highway Traffic Safety Administration (NHTSA) available at <http://www.fars.nhtsa.dot.gov>. All figures are considered current as of December 2004. Please direct any questions concerning data in this document to the Center for the Advancement of Transportation Safety, Purdue University, 1291-F Cumberland Ave., West Lafayette, IN 47906-1385, 765-494-7038.
